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ABSTRACT

Three hundred and fifty nine career and vocational resources were reviewed to determine if male and female students in Michigan secondary schools were exposed to sex-role stereotyping in instructional materials. The review was conducted as part of a site visitation to twenty secondary and area vocational skill centers. A twenty-two item instrument was designed to yield data which would determine the frequency of specific stereotypic patterns. Each questionnaire item was applied to three areas: (1) language, (2) illustrations, and (3) context. Among the findings was that in an average of 53% of the learning resources, gender was associated with job titles, objects, interests, activities, or occupations through context and language. In addition, 6.1% of the materials had cliches, innuendoes, sentences, and/or questions that connote or denote sex-role stereotyping. Thirty-nine percent of the materials through context, 33% through illustrations, and 30% through language were directed to males predominantly. Stereotyping was more evident in interactions among persons in a work setting than in interactions among family and peers. Also it was found that an intention to reflect minority populations was evident in an average of 28% of the three categories. (The instrument for assessing sex-role stereotyping in learning resources is appended.) (LRA)

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ELIMINATING SEX-ROLE STEREOTYPING IN VOCATIONAL EDUCATION:

Report on the Identification of Sex Biases in Vocational Education Instructional Materials and Resources

Expanding Vocational Education and Training Options for Women and Men in Michigan

Submitted by
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for
Center for Women's Services
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March, 1979

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TABLE OF CONTENTS

Section I: Background and Purpose of the Study 1
Definition of Key Concepts 1
Section II: Development of the Study Sample 2
Study Sample 2
Data Collection 2
Section III: Instrument Construction 2
Design of the Instrument 2
Items 2
Instructions for Using the Instrument 2
Uses of the Instrument 3
Limitations of the Instrument 3
Section IV: Data Analysis 3
Data Analysis: Design 3
Limitations for the Analysis of Data 3
Section V: Results 3
Numerical Balance 3
Presence of Neutral Identification 3
Statements Which Stereotype Either Sex 4
Male Characterization 4
Female Characterization 4
Stereotypes in the Family Setting 5
Stereotypes Among Peers 5
Stereotypes in the Work Setting 5
Presence of Non-traditional Male and Female Role Models 5
Predominance of Female and Male Stereotypic Personality 6
Humor Based on Sex-Role Stereotyping 6
Stereotypic Physical Appearance 6
Hypothetical Examples or Problems Focusing Primarily on Males or Females 7
Little or No Recognition of the Achievements of Males or Females 7
Limited Range of Vocational and Career Choices for Males and Females 7
Evidence of an Intention to Represent Minority Groups 8
Tracking of Minority Groups in the Work Setting 8
Accurate Representation of Minorities 8
Section VI: Summary 8
Appendix A 11

LIST OF TABLES

Table I:	Type and Vocational Focus of the Sample Materials Reviewed	2
Table II:	Presence of Neutral Identification	4
Table III:	Statements Which Stereotype Either Sex	4
Table IV:	The Predominance of Male Characters and Male Characterization	4
Table V:	The Predominance of Female Characters and Female Characterization	4
Table VI:	Evidence of Stereotypes Within the Family Setting	5
Table VII:	Evidence of Stereotypes Among Peers	5
Table VIII:	Evidence of Stereotypes in the Work Setting	5
Table IX:	Comparison of Stereotyping as Evidenced in Three Settings: Within the Family, Among Peers, In the Work Setting	5
Table X:	Comparison of the Number of Resources Wherein Traditional and Non-traditional Male and Female Role Models Were Presented	6
Table XI:	Comparison of the Number of Instances Wherein Male and Female Stereotypic Personality Traits were Presented	6
Table XII:	Evidence of Humor Based on Sex-Role Stereotyping	6
Table XIII:	Evidence of Stereotypes Indicated Through Physical Appearance	6
Table XIV:	Comparison of Personality Traits, Humor and Physical Appearance as a Source of Sex-Role Stereotyping	7
Table XV:	Comparison of the Number of Resources Which Featured Primarily Male or Female Hypothetical Examples or Problems	7
Table XVI:	Comparison of the Degree of Recognition of Male and Female Achievements	7
Table XVII:	Comparison of Career Opportunities Presented to Males and Females	7
Table XVIII:	Minority Representation in the Instructional Resources	8
Table XIX:	Evidence of Tracking Minorities in the Work Setting	8
Table XX:	Degree of Accurate Representation of Minorities	8

Section I
BACKGROUND AND PURPOSE OF THE STUDY

Background of the Study

Instructional resources, especially books, have long been recognized as the major channel through which career information is disseminated and acquired. As instructional instruments, career resources often become tools for socialization. Attitudes, values, behaviors, and roles reflect the American work ethos and are subtly and indirectly conveyed to students. Particularly on the base of race and sex, occupational role expectations are often arbitrarily presented in career-oriented materials. Students may select traditional roles as a result of their exposure to biased career and vocational materials.

As a result, recent vocational legislation is requiring school districts to reexamine occupational curricula for students of all ages. Commercial publishers, state educational agencies, and private foundations have also responded to this problem in an attempt to improve the delivery of non-biased career information to student and adult audiences.

While no empirical evidence to date has demonstrated a direct relationship between biased instructional materials and sex-linked occupational choice among secondary students, a review of the literature suggests that many career education materials currently in use in schools are sex-biased.[1] To the extent that these materials uphold social tradition and prescribe life, leisure, work and citizenship roles for young people on the basis of race and sex, the scope of career opportunity offered to females and males to encourage them to participate in the work world will be influenced by the language, the visuals and the context in which work roles are presented to them. An excellent study of the degree to which career and vocational materials present traditional, limited career options to students was conducted by the National Center for Vocational Education at Ohio State University in 1974. The report concluded that "to a greater or lesser extent, almost all of the materials were found to be stereotyped."[2]

Therefore, the intent of this study was to determine if male and female students in Michigan secondary schools were exposed to sex-role stereotyping in instructional materials currently being used in twenty Michigan high schools and area vocational skill centers.

Definition of Key Concepts

To provide the reviewer with a clear understanding of the words and phrases incorporated in the instrument, the following definitions were assigned to key concepts and terminology.

Discrimination: The act of treating one party or group differently from the other; usually refers to treating one worse than the other.

Equal, equity: Alike in quality, quantity, size, number, values, status, degree, intensity and nature; to regard or affect a person or object in the same, impartial way; having the same rights, privileges, abilities and rank.

Gender: The cultural or social concept of identity based on maleness or femaleness: i.e., masculinity or femininity.

Limited: The state of being restricted or constrained in selecting, defining, developing, and/or applying career and vocational preferences.

Minority Group: A group that is distinctive from the majority of inhabitants in the United States on the basis of race; groups such as the economically poor, the elderly and the physically disabled in which race or sex is not a prominent factor.

Non-traditional: Moving away from long established social or cultural customs, beliefs or behaviors which have become outdated.

Non-sexist: A conscious state of developing and defining equitable attitudes toward females and males; a situation free of sex bias.

Norm: An informal or formal social code which establishes commonly accepted beliefs, standards or reference points regarding the appropriate behavior, belief, attitude or interest of its members.

Predominance: The tendency to outrank, outnumber or overshadow to the degree where diversity or divergence is neither encouraged nor valued highly.

Role: The part played by an individual in relation to a group of which he or she is a member.

Sex Bias: Behavior, attitude or ideology that is based solely on sex, and results from the assumption that one sex is superior to another.

Sex Discrimination: Practices of custom, habit, law or action which limit or define a person's opportunities, privileges, roles, rank, status or reward on the basis of sex.

Sex Role Stereotyping: The assignment of behaviors, attitudes, interests, values or roles to a person or group of persons on the basis of sex.

Stereotype: An oversimplified generalization about a person or group of persons which usually carries a derogatory implication; a standardized conception held and accepted by members of a society which prejudges the attitudes, behaviors, interests and abilities of a person or group of persons.

Tradition: Passage of information, beliefs and customs by word of mouth, by written word or by example from one generation to another, or an inherited pattern of thought or action that provides cultural and social continuity.

1. An extensive review of the literature has been presented by the BORN FREE project, University of Minnesota.
2. Vetter, L., Stockburger, D., and Brose, Christine, *Career Guidance Materials: Implications for Women's Career Development*. Columbus: The Ohio State University, 1974, p. ix.

Section II
DEVELOPMENT OF THE STUDY SAMPLE

Study Sample

Three hundred and fifty-nine career and vocational resources were reviewed in the study. A resource of less than 75 pages in length was reviewed in total. A resource of more than 75 pages in length was divided into chapters, and for a manual, catalogue, or reference book, every other 15 pages were sampled. Table I identifies the type and vocational focus of the materials reviewed in this study.

Table I
TYPE AND VOCATIONAL FOCUS OF THE SAMPLE MATERIALS REVIEWED
N = 359

TYPE	N	%
Pamphlets	174	49
Audio-visual	70	19
Textbooks	52	14
Reference books	25	7
Catalogues	14	4
Manuals	10	3
Other	7	2
DK/NA	2	2
TOTAL	359	100
VOCATIONAL FOCUS	**N**	**%**
Careers in general	156	44
Trade/Technical	64	18
Service occupations	45	13
Health	34	9
Office	19	5
Sales	14	4
Art and design	12	3
Production	11	3
Transportation	4	1
TOTAL	359	100

One hundred and seventy-four of the instructional resources were pamphlets. Of the reviewed resources, 19% were audio-visual materials. Broad, non-technical career information constituted 44% of the sample. Fifty-six percent reflected vocational curriculum materials and/or vocational career information which was currently being used by students at the sites. The greatest number of vocational materials (18%) was representative of the trade and technical occupational clusters.

Though all the materials reviewed in the study were currently in use, 43% had no reference to a publication date. Of those materials which were dated, 52% were published between 1970-1977.

Data Collection

The review of vocational and career materials was conducted as part of a site visitation to twenty secondary schools and area vocational skill centers in the state of Michigan. A site coordinator at each facility was asked to prepare a quiet working place for the reviewer and to set aside a number of vocational instructional resources which were currently being used at the site. These materials were limited to those which were career-oriented or vocational/technical in focus.

Section III
INSTRUMENT CONSTRUCTION

Design of the Instrument

An instrument was designed to yield data which would determine the frequency of specific stereotypic patterns which were evident in a selected sample of vocational and career instructional resources.

The instrument included 22 items. To guide the reviewer, definitions and examples of each of the items and directions for random sampling of a resource 75 pages or more in length were also included. A copy of the instrument is included in Appendix A.

Items

Each item was made up of a root criterion and "signal" words. Only the root criterion in each item was underlined on the reviewer's rating sheet. The remaining words in the item "signaled" the reviewer to judge the degree to which the item was evident in the resource.

The 22 items were grouped into several areas:

(1) characterization
(2) role models
(3) hypothetical examples or problems
(4) recognition or achievements
(5) interests, abilities, activities
(6) personality traits
(7) humor
(8) physical appearance
(9) range of career/vocational choice
(10) stereotypic statements
(11) neutral language
(12) minority representation

Instructions for Using the Instrument

For each of the instructional resources, the 22 items were applied to three areas: (1) language: typed or handwritten words appearing on pages, (2) illustrations: visuals appearing on pages, such as pictures, photographs, graphics, tables, charts, posters, art designs, and (3) context: the frame of reference wherein written and visual components of the materials lend connotation or denotation to words, statements or pictures.

For each of the three areas, each item was marked only once as Yes, No or Not Applicable. If the root criterion was applicable, the rater was directed to mark either Yes or No. The "signal" words to the reviewer determined whether the mark was made in the Yes or the No column. "Signal" words were suggested by the following words: predominant, primarily, little or no, limited, stereotypic and non-traditional.

"Signal" words judged whether the item contributed to sexual and/or racial bias. The degree to which stereotyping was presented by an item was measured by the reviewer's agreement or disagreement with the "signal" words as applied to the language, context and illustration in the resource.

Consider the following example from a section of the instrument:

RATING SHEET

ITEM	AREAS								
	CONTEXT			LANGUAGE			ILLUSTRATION		
	Yes	No	NA	Yes	No	NA	Yes	No	NA
11. Predominance of *male* stereotypic *personality*	☒	☐	☐	☒	☐	☐	☐	☐	☒
12. *Humor* based on sex-role stereotyping	☐	☒	☐	☐	☒	☐	☐	☒	☐
13. Stereotypic *physical appearance*	☒	☐	☐	☐	☐	☒	☒	☐	☐
14. *Hypothetical examples or problems* focusing primarily on *males*	☒	☐	☐	☒	☐	☐	☐	☒	☐

SAMPLE

Item 11 is interpreted as follows: The root criterion is male personality. Signal words include "predominance . . . stereotypic." The judgment made was that there were several instances of the male personality being predominant in the context and language. A mark in the NA column under illustration suggests that the male personality was not at all evidenced through illustration.

Item 12 is interpreted as follows: The root criterion is humor. The signal words are "based on sex-role stereotyping." The judgment made was that though humor was present in language, in context and in illustration, the humor was not based on sex-role stereotyping.

Item 13 is interpreted as follows: The root criterion is physical appearance. The signal word is "stereotypic." The judgment made was that there are several instances in the context and illustration where physical appearance reflected a stereotype. A mark in the NA column under language suggested that there was no evidence of physical appearance or reference to physical appearance in the language.

Item 14 is interpreted as follows: The root criterion is male hypothetical examples or problems. The signal words include "focusing primarily." The judgment is made that in context and in language, the hypothetical examples or problems focused primarily on males. The No mark in the illustration column suggests that though there were visual instances of hypothetical examples or problems featuring males, the illustrations did not collectively suggest a primary focus only on males.

Uses of the Instrument

The instrument was used as a tool to identify various types of sexist patterns in vocational instructional materials. The instrument provided data summarizing the frequency with which types of stereotypic patterns were evident in a collection of instructional materials. This strategy was intended to give the researchers some baseline data regarding the extent of sex bias in vocational educational instructional materials currently in use in twenty Michigan secondary schools and area vocational skill centers.

Limitations of the Instrument

Though some items were viewed as representing sex-role stereotyping issues, there was no attempt to rank order the items in the instrument or judge one item as being more important or representative of a stereotypic behavior than another.

The instrument was also designed to be used by a reviewer who had previous experience reviewing materials for elements of sexual and racial biases. Thus the use of the instrument was limited to persons who possess special skill and expertise in this area.

Section IV
DATA ANALYSIS

Data Analysis: Design

For each of the 22 items, the marks in the Yes, No and NA columns for each of the three areas (language, context and illustration) were summed for each resource. Frequency counts were then tabulated by item for 359 resources.

Cross-tabulations by vocational focus were then run, using selected items. The purpose of the cross-tabulation was to identify in which vocational areas male and female characters clustered, and in which vocational areas limited career options had been presented. These clusters were then compared with the concentrations of the sexes in Michigan secondary vocational programs as indicated by the enrollment data. The results of the cross-tabulations are not presented in this report.

Limitations for the Analysis of Data

The highly technical nature of the review, coupled with the relatively short period of time to review materials or train reviewers, had some effect on the analysis of the data. The two major limitations include:

1. Rater reliability tests were not conducted.
2. All materials in the sample were reviewed by one person.

Section V
RESULTS

The results of this study are presented below. Data for the discussion of Numerical Balance were taken from frequency counts.

Numerical Balance

1. Presence of Neutral Identification

The criterion for judging whether or not a resource could be characterized as "neutral" was the presence of occupations, inter-

ests, objects, job titles, or activities which were not assigned on a gender basis. Also, the syntax (man) was not used frequently throughout the materials.

In an average of 53% of the learning resources, gender was associated with job titles, objects, interests, activities, or occupations through context and language, as Table II suggests

Table II
PRESENCE OF
NEUTRAL IDENTIFICATION

	CATEGORY						
	Context		Language		Illustration		Mean
	N	%	N	%	N	%	%
Number of Neutral Resources	167	46.52	165	45.56	39	10.86	34.5
Number of Biased Resources	191	53.20	192	53.48	118	32.80	46.5
Not Applicable	1	.26	2	.56	202	56.27	19.0
TOTAL	359	100%	359	100%	359	100%	

This finding suggests that in approximately half of the resources reviewed, students were presented with materials that linked or referenced gender through language, context and illustration with occupations, interests, activities that by nature have no inherent gender.

2. Statements Which Stereotype Either Sex

For purposes of the review, stereotyped statements included sentences. questions, clichés, innuendoes or modifiers which connoted or denoted interests, traits, activities, or abilities on the basis of gender.

In an average of only 6.1% of the materials did clichés, innuendoes, sentences and/or questions connote or denote sex-role stereotyping. Table III presents a summary of the frequency of this item.

Table III
STATEMENTS WHICH STEREOTYPE
EITHER SEX

	CATEGORY						
	Context		Language		Illustration		Mean
	N	%	N	%	N	%	%
Yes – Stereotyped Statements	26	7.24	31	8.64	9	2.51	6.1
No-Stereotyped Statements	286	79.67	280	77.99	155	43.18	67.0
Not Applicable	47	13.09	48	13.37	195	54.32	26.9
TOTAL	359	100%	359	100%	359	100%	

From the data it appears that only in rare instances were blatant stereotypic statements presented to the reader.

3. Male Characterization

When a vast majority of the learning resource was directed most frequently to males through a written or visual focus, with a resulting underrepresentation of females, this judgment was made.

On the average, 237 of the resources included male characters through context, language or illustrations, as Table IV points out.

Table IV
THE PREDOMINANCE OF MALE CHARACTERS
AND MALE CHARACTERIZATION

	CATEGORY						
	Context		Language		Illustration		Mean
	N	%	N	%	N	%	%
Yes-Male Characterization is Predominant	141	39.28	109	30.36	121	33.71	34.4
No-Male Characterization is not Predominant	107	29.81	132	36.77	101	28.13	31.6
Not Applicable	111	30.92	118	32.87	137	38.16	34.0
TOTAL	359	100%	359	100%	359	100%	

Thirty-nine percent of the materials through context, 33% of the materials through illustrations, and 30% of the materials through language were directed to males predominantly.

4. Female Characterization

When a vast majority of the learning resource was directed most frequently to females through a written or visual focus, with a resulting underrepresentation of males, this judgment was made.

On the average, 211 of the resources presented female characters through context, language or illustration, as Table V notes.

Table V
THE PREDOMINANCE OF FEMALE CHARACTERS
AND FEMALE CHARACTERIZATION

	CATEGORY						
	Context		Language		Illustration		Mean
	N	%	N	%	N	%	%
Yes-Female Characterization is Predominant	37	10.31	29	8.08	42	11.70	10.0
No-Female Characterization is Not Predominant	184	51.25	185	51.53	157	43.73	48.8
Not Applicable	138	38.44	145	40.39	160	44.57	41.2
TOTAL	359	100%	359	100%	359	100%	

Ten percent of the learning resources through context, 8% of the materials through language, and 11% of the materials through illustration were directed primarily to females and features females predominantly.

In comparison to the data from Item 3, these data from Item 4 suggest that the number of resources which featured male characters was slightly more than the number of resources that presented female characters through language, context or illustration. This difference is not great enough to suggest a significant imbalance. However, the tendency to have male characters predominate in a single instructional resource was much greater (39%) than the tendency to direct and feature females primarily in a single instructional resource (10%). Thus, it can be argued that when vocational education secondary students in Michigan are exposed to vocational and career education materials, the link between males and the world of work is stronger than the identification of females with the world of work.

5. Stereotypes in the Family Setting

If roles in the family unit were frequently assigned on the basis of sex, and/or stereotypic interest, ability, activity, structure or interaction within the family were present, this judgment was made.

Table VI
EVIDENCE OF STEREOTYPES WITHIN THE FAMILY SETTING

	CATEGORY						
	Context		Language		Illustration		Mean
	N	%	N	%	N	%	%
Yes-Family Settings Reflected SRS	34	9.47	21	5.85	31	8.64	8.0
No-Family Setting Did Not Reflect SRS	32	8.91	26	7.24	34	9.47	8.5
Not Applicable	293	81.62	312	86.91	294	81.89	83.5
TOTAL	359	100%	359	100%	359	100%	

As Table VI suggests, family settings were suggested in only an average of 8% of all the learning resources. The reader's attention was directed to a familial unit in the average of 28 instructional resources, of which half reflected sex-role stereotyping.

This finding suggests that though readers of career and vocational education resources are infrequently exposed to roles outside a career context, i.e., a family role, reinforcement of sex-role stereotyping is evident in half of those instances.

6. Stereotypes Among Peers

For purposes of the review, females and males separated by sex and age into groups, displaying stereotyped behaviors, rarely sharing similar interests, abilities and activities with peers of the opposite sex, were criteria for making this judgment. In general, stereotypic interest, ability, activity, structure, or interaction among peers were included.

In those limited instances where peers were interacting, 79% of the learning resources suggested no bias on the average in any of the three areas. Table VII presents a summary of the resources wherein this item was applicable.

Table VII
EVIDENCE OF STEREOTYPES AMONG PEERS

	CATEGORY						
	Context		Language		Illustration		Mean
	N	%	N	%	N	%	%
Yes-Stereotyping was Reflected in Peer Group Setting	11	3.06	7	1.95	12	3.34	2.8
No-Stereotyping was Not Reflected in Peer Group Setting	40	11.14	44	12.26	35	9.75	11.0
Not Applicable	308	85.80	308	85.80	312	86.91	86.2
TOTAL	359	100%	359	100%	359	100%	

For these data, it appears that stereotyping is presented to students less through a peer structure than through a family structure. In comparison to Item 5, the data also suggest that interaction among peers is not a common medium through which vocational and career resources introduce careers and/or provide instructional skills to students.

7. Stereotypes in the Work Setting

If the material supported occupational choice and career exploration on the basis of gender, this judgment was confirmed. Included were stereotypic interest, ability, activity, structure or interaction in the work setting. Occupations and/or occupational areas that represented only that sex which has traditionally been employed in that field were also considered.

Sex-role stereotyping was evident in the context (28%) and to a lesser degree through language (19%), and illustration (26%). Among the three categories, students are more likely to encounter bias through illustration than through language or context in resources where there is interaction in a work setting. Table VIII points out the number of resources wherein stereotypes were present in a work setting.

Table VIII
EVIDENCE OF STEREOTYPES IN THE WORK SETTING

	CATEGORY						
	Context		Language		Illustration		Mean
	N	%	N	%	N	%	%
Yes-Stereotypes were Reflected in Work Setting	102	28.41	71	19.78	95	26.46	24.9
No-Stereotypes were Not Reflected in Work Setting	160	44.57	186	51.81	114	31.75	42.7
Not Applicable	97	27.02	102	28.42	150	41.78	32.4
TOTAL	359	100%	359	100%	359	100%	

In comparison to Item 5 and Item 6, stereotyping was more evident in interactions among persons in a work setting than in interaction among families and peers, as Table IX suggests.

Table IX
A COMPARISON OF STEREOTYPING AS EVIDENCED IN THREE SETTINGS: WITHIN THE FAMILY, AMONG PEERS, IN THE WORK SETTING

	CATEGORY						
	Context		Language		Illustration		Mean
	N	%	N	%*	N	%*	%
SETTING							
Family							
Yes-Stereotype	34	9	31	9	21	6	8
No-Stereotype	32	9	34	9	26	7	8.3
NA-	293	82	294	82	312	87	83.7
TOTAL	359	100	359	100	359	100	
Peers							
Yes-Stereotype	11	3	7	2	12	3	2.7
No-Stereotype	40	11	44	12	35	10	11.0
NA-	308	86	308	86	312	87	86.3
TOTAL	359	100	359	100	359	100	
Work							
Yes-Stereotype	102	28	71	20	95	26	24.7
No-Stereotype	160	45	186	52	114	32	43.0
NA-	97	27	102	28	150	42	32.3
TOTAL	359	100	359	100	359	100	

*Percents have been rounded

8. Presence of Non-traditional Male and Female Role Models

Non-traditional role models for either sex were considered to be present when examples and hypothetical material suggested that males can participate in a variety of careers and succeed, including occupations in food service, office work, teaching, health and social services, consumer education, and homemak-

ing. Examples and hypothetical material suggesting that females can participate in a variety of careers and succeed, including occupations in construction, industrial management, communication, finance, and science and technology, were similarly included as criteria for this item.

In an average of 235 of the instructional resources, male role models were presented. On the average, only 29 of these resources presented non-traditional male role models. In an average of 210 of the instructional resources, female role models were presented to the reader. Of those resources, 65 presented the reader with non-traditional female role models. This finding suggests that considerably more non-traditional role models were presented to females than were presented to males.

Table X presents a comparison of the number of resources which reflected traditional and non-traditional role models for both sexes.

Table X
COMPARISON OF THE NUMBER OF RESOURCES WHEREIN TRADITIONAL AND NON-TRADITIONAL MALE AND FEMALE ROLE MODELS WERE PRESENTED

Item	Category	Traditional Role Models N	%	Non-traditional Role Models N	%
Male role models	Context	228	63.51	22	6.13
	Language	211	58.77	28	7.8
	Illustration	178	49.58	37	10.31
	Mean	206	57.4	29	8.1
Female role models	Context	163	45.40	58	16.16
	Language	144	40.11	70	19.5
	Illustration	128	35.65	68	18.94
	Mean	145	40.39	65	18.2

Thus it appears that within the materials reviewed, the intent to present non-stereotypic career opportunities through role modeling was directed more to females than to males.

9. Predominance of Female and Male Stereotypic Personality

The assignment of personality traits that presented the traditional female as emotional, weak, possessive, illogical, clean, inactive, quiet, submissive, nurturing, dependent was a criterion for this item.

Similarly, the assignment of personality traits that presented the traditional male as tough, aggressive, brash, strong, independent, dirty, loud, determined, competitive and insensitive, was a criterion for this item.

As Table XI suggests, male and female stereotypic personality traits were presented with similar frequency throughout the learning resources which were reviewed.

Table XI
COMPARISON OF THE NUMBER OF INSTANCES WHEREIN MALE AND FEMALE STEREOTYPIC PERSONALITY TRAITS WERE PRESENTED

Item	Category	Yes N	%	No N	%	NA N	%	Total
Stereotypic female personality	Context	29	8.08	44	12.26	286	79.67	359
	Language	17	4.7	55	15.32	287	79.94	359
	Illustration	22	6.13	42	11.7	295	82.17	359
	Mean		6.3		13.1		80.6	
Stereotypic male personality	Context	24	6.69	48	13.37	287	79.94	359
	Language	13	3.62	58	16.16	238	80.2	359
	Illustration	21	5.85	42	11.7	296	82.45	359
	Mean		5.4		13.7		80.9	

In comparison to data elicited from Items 8 and 9, it appears that even though more non-stereotypic female role models were presented to students, there was also a slight tendency in the materials to center more biased attention on the female personality than on the male personality. On the average, 6.2% of the materials presented female stereotypic personality traits; on the average, 5.3% of the materials presented male stereotypic personality traits.

10. Humor Based on Sex-role Stereotyping

Humor based on sex-role stereotyping was defined as jokes, puns, riddles, asides, cartoons and "light" statements which through allusion or direct reference to a stereotype were intended to elicit a laugh from the reader.

To only an average of 24 of the 359 resources could this item be applied. Of these, only 7 instructional resources had jokes, puns, riddles, cartoons and/or statements offered in jest with sex-role stereotyping as a basis for the humor, as Table XII suggests.

Table XII
EVIDENCE OF HUMOR BASED ON SEX ROLE STEREOTYPING

	CATEGORY Context N	%	Language N	%	Illustration N	%	Mean %
Yes-Stereotyping Reflected in Humor	6	1.67	7	1.95	7	1.95	1.9
No-Stereotyping Not Reflected in Humor	44	12.26	42	11.7	39	10.86	11.6
Not Applicable	309	86.07	310	86.35	313	87.19	86.5
TOTAL	359	100%	359	100%	359	100%	

This finding suggests that humor was not a frequent source of sex-role stereotyping in the instructional resources which were reviewed.

11. Stereotypic Physical Appearance

On the average, 16% of the 359 learning resources suggested facial expressions, posture or dress indicative of male and female stereotypes. Table XIII presents a summary of the resources wherein stereotypic physical appearance was present.

Table XIII
EVIDENCE OF STEREOTYPES INDICATED THROUGH PHYSICAL APPEARANCE

	CATEGORY Context N	%	Language N	%	Illustration N	%	Mean %
Yes-Stereotypes Reflected in Physical Appearance	70	19.5	19	5.29	82	22.84	15.9
No-Stereotypes Not Reflected in Physical Appearance	131	36.49	113	31.48	128	35.65	34.5
Not Applicable	158	44.01	227	63.23	149	41.5	49.6
TOTAL	359	100%	359	100%	359	100%	

Physical appearance appeared to contribute more as a source of sex-role stereotyping than did humor or personality traits. As Table XIV suggests, on the average in 16% of the institutional resources, evidence of stereotyping through physical appearance

was reported, in comparison to less than 7% of the resources wherein stereotyping was effected in humor or personality traits. It is significant to note, however, that the number of resources wherein stereotyping was identified through physical appearance, humor or personality traits was less than the number of resources wherein no bias was detected in these same areas.

Table XIV
COMPARISON OF PERSONALITY TRAITS, HUMOR, AND PHYSICAL APPEARANCE AS A SOURCE OF SEX-ROLE STEREOTYPING

Item	Category	Stereotyped		Non-Stereotyped	
		N	%*	N	%*
Female personality	Context	29	8	44	12
	Language	17	5	55	15
	Illustration	22	6	42	12
	Mean		6.3		13
Male personality	Context	24	7	48	13
	Language	13	4	58	16
	Illustration	21	6	42	12
	Mean		5.7		13.7
Humor	Context	6	2	44	12
	Language	7	2	42	12
	Illustration	7	2	39	11
	Mean		2		11.7
Physical appearance	Context	70	20	131	37
	Language	19	5	113	32
	Illustration	82	23	128	36
	Mean		16		35

*Percentages have been rounded

12. Hypothetical Examples or Problems Focusing Primarily on Males or Females

Included for consideration of this item were case studies, story problems, study paragraphs, study questions or exercises in which the majority of references focused on or referred to one sex or the other.

On the average, 66 resources presented hypothetical examples or problems which focused on males. In comparison, 56 resources on the average presented hypothetical examples or problems which focused on females. Table XV is a comparison of the number of resources wherein hypothetical examples or problems were presented to the readers.

Table XV
COMPARISON OF THE NUMBER OF RESOURCES WHICH FEATURED PRIMARILY MALE OR FEMALE HYPOTHETICAL EXAMPLES OR PROBLEMS

Item	Category	Yes		No		NA		Total
		N	%	N	%	N	%	
Male examples and problems	Context	39	10.86	44	12.26	276	76.88	359
	Language	41	11.42	41	11.42	277	77.16	359
	Illustration	9	2.51	28	7.8	322	89.69	359
	Mean	29		37				
Female examples and problems	Context	4	1.11	63	17.55	292	81.34	359
	Language	6	1.67	61	16.99	292	81.34	359
	Illustration	6	1.67	30	8.36	323	89.97	359
	Mean	5		51				

The average number of resources which focused primarily on males (29) was much greater than the average number of resources which featured primarily females through language, context or illustration (5). Thus it appears that the tendency to focus on males in a problem-solving context is stronger than the tendency to feature females in a similar context.

13. Little or No Recognition of the Achievements of Males or Females

For purposes of the review, professional contributions to a field in theory; discoveries, inventions, research efforts in the field; awards, citations, tributes for work in a field; and activities which history has proven to be significant were considered as criteria for judging this item.

Professional contributions, discoveries, inventions, awards or historical achievements of males were cited in an average of 52 resources. In 50 resources, achievements of males were alluded to or recognized beyond a mere reference, i.e., details of the achievements were included. Achievements by females were alluded to in 41 resources. However, in only 11 of these 41 instances was detailed recognition of female accomplishment cited. Table XVI compares the number of resources where achievements of the sexes were presented.

Table XVI
COMPARISON OF THE DEGREE OF RECOGNITION OF MALE AND FEMALE ACHIEVEMENTS

Item	Category	Little or No Recognition		Recognition	
		N	%	N	%
Male achievements	Context	3	.84	62	17.27
	Language	2	.56	62	17.27
	Illustration	2	.56	27	7.52
	Mean	2.3		50.3	
Female achievements	Context	37	10.31	12	3.34
	Language	36	10.03	13	3.62
	Illustration	16	4.46	9	2.51
	Mean	29.7		11.3	

This finding is noteworthy in that in comparison to male achievement, female achievement appears to be highlighted less than are the accomplishments of males.

14. Limited Range of Vocational and Career Choices for Females and Males

In those materials wherein jobs, occupations, career paths and vocational interest ranges frequently included only those traditionally held by either sex, this judgment was made.

Career options for males were not limited through context (81%), through language (85%), or through illustration (49%). In comparison, career opportunities for females were not limited through context (51%), through language (59%), or through illustration (32%). Table XVII offers a comparison of the number of resources where career opportunities were presented.

Table XVII
COMPARISON OF CAREER OPPORTUNITIES PRESENTED TO MALES AND FEMALES

Item	Category	Limited Career Options		Not Limited	Career Options
		N	%	N	%
Male career options	Context	61	16.99	291	81.06
	Language	41	11.42	305	84.96
	Illustration	50	13.93	174	48.47
	Mean	50.6		256.6	
Female career options	Context	153	42.62	183	50.97
	Language	123	34.26	210	58.50
	Illustration	116	32.31	101	28.13
	Mean	130.6		164.6	

From these data, it is apparent that limited opportunities are presented on the average more to females (130 resources) than on the average to males (51 resources), despite the fact that there is only a slight numerical imbalance in the average number of resources which presented career opportunities to males (307) and to females (295).

15. Evidence of an Intention to Represent Minority Groups

When portions of the material in the learning resource were directed to, and focused on, the achievements, life aspirations, career goals, life styles and/or behaviors of all ethnic groups, including minorities, this item was valid.

An intention to reflect minority populations was evident in an average of 28% of the three categories. Intent was demonstrated much more through illustration (33%) and context (33%) than through language (16%), as Table XVIII suggests.

Table XVIII
MINORITY REPRESENTATION IN THE INSTRUCTIONAL RESOURCES

	CATEGORY						
	Context		Language		Illustration		Mean
	N	%	N	%	N	%	N
Yes-Minority were Represented	121	33.7	58	16.16	122	33.98	100.3
No-Minority were not Represented or Underrepresented	233	64.9	292	81.34	120	33.43	215.0
Not Applicable	5	1.39	9	2.51	117	32.59	43.7
TOTAL	359	100%	359	100%	359	100%	

As Table XVIII suggests, the intent to represent minorities amounted to little more than a token effort to include persons from minority and ethnic backgrounds. Only one-third (100 resources) gave more than token attention to minorities in comparison to non-minority or non-ethnic groups. It is also noteworthy that much more attention had been directed to representing minorities through illustration than through language.

16. Tracking of Minority Groups in the Work Setting

Evidence of this item was present when Blacks, Native Americans, Spanish surnamed Americans, Orientals, and/or Asians were clustered in lower paying, low status occupations in which little or no managerial, supervisory or leadership responsibility was assigned to them on the job. Also occupations with more prestige, salary and responsibility, when assigned primarily to white persons, was a criterion for this item.

In an average of 130 resources, jobs were tracked, i.e., the salary, responsibility and status of jobs were linked with factors such as age, sex, or race. On the average only 1% of the jobs were tracked according to race or ethnicity, as Table XIX demonstrates.

Table XIX
EVIDENCE OF TRACKING MINORITIES IN THE WORK SETTING

	CATEGORY						
	Context		Language		Illustration		Mean
	N	%	N	%	N	%	N
Yes – Minorities were Tracked	1	.28	2	.56	8	2.23	4
No – Minorities were Not Tracked	134	37.33	128	35.65	117	32.59	126
Not Applicable	224	62.40	229	63.79	234	65.18	229
TOTAL	359	100%	359	100%	359	100%	

This finding suggests that though jobs were tracked in the resources according to age, sex or race, race did not appear to be a significant factor. Career opportunities for minorities were not limited by the stereotypic expectation that they would assume lower paying, low status jobs.

17. Accurate Representation of Minorities

The degree to which minority groups are represented in the materials, using the following scale, was also rated by the reviewer:

1. *Very representative* of population patterns in Michigan, based on a ratio of 90% non-minority population to a 10% minority population.
2. *Somewhat representative* of population patterns in Michigan.
3. *Limited representation* of population patterns in Michigan.

At least some representation of minorities was presented in 168 of the instructional resources, as Table XX suggests.

Table XX
DEGREE OF ACCURATE REPRESENTATION OF MINORITIES

Category	N	%
Very representative	92	25.63
Somewhat representative	30	8.36
Limited representation	46	12.81
TOTAL	168	46.7

Of the 168 resources wherein minorities were given more than slight attention, minorities were accurately (92) or fairly accurately (30) representative of Michigan population patterns.

Section VI
SUMMARY

The strong link between vocational fields and gender contributed to a pattern of sex-biased work role expectations. This finding indicated that male and female students were frequently exposed to sex-role stereotyping in instructional career and vocational resources. Evidence of stereotyping was also supported by other findings. These findings include the fact that in half of the resources, sex-referenced language was associated with job titles, interests, attitudes or occupations. Furthermore, stereotyping was reported to be stronger in the work settings than in family or peer settings.

The link between males and the world of work was strongly suggested through the fact that there were more career/vocational resources with male characters predominating than with female. This was particularly true in the resources which had no specific career focus and which were intended to introduce broadly vocational occupations and careers to the reader. In addition, restricted career options for females were more frequently identified than were limited career options for males.

Though the primary purpose of this study was not to measure the type and origins of racial bias in career and vocational education material in the sample, some attention was also directed to reporting the representation of minority and ethnic persons

in the instructional resources. Though minority representation was evident more through illustration or context than through language, racial bias appeared also to be characteristic of the materials sampled in the study.

In summary, the resources in the study sample through context, language, and illustration may have a tendency to direct males and females to vocational and career fields in which they have been traditionally and numerically represented. For example, females may have a tendency to enter the health and office fields because of their traditional representation in these fields as depicted in career and vocational materials. In comparison, males were most frequently represented through the study sample in the occupational fields of trade and industry, technical and sales fields. In those career fields which could not be specifically related to a vocational/occupational field, more males than females were featured or presented to the readers.

Thus those male and female students in Michigan secondary schools who used the materials reviewed in this study were being exposed to sex-role stereotyping. Contrary to whatever attitudinal or environmental support systems may have been designed in the school system to reduce sex-role stereotyping in vocational education, vocational and career instructional resources in the study may have a tendency to reinforce sex-linked career and work expectations.

APPENDIX A

INSTRUMENT FOR ASSESSING SEX-ROLE STEREOTYPING IN LEARNING RESOURCES

INSTRUMENT FOR ASSESSING SEX-ROLE STEREOTYPING IN LEARNING RESOURCES: INTRODUCTION

Limitations

The assessment and rating scale which was developed for this project has the following limitations:

1. The instrument does not deal with any limitations on occupational choice for either sex which are inherent in some vocational education programs.
2. The instrument does not attempt to weight the different kinds of learning resources as to their effectiveness for learning, or their desirability or popularity with students.
3. The final positive or negative judgment for each criterion in each area is a reflection of the reviewer's global perception.
4. The instrument can be used as a tool for random assessment of a learning resource over 75 pages in length. However, the instrument *cannot* be used for random assessment of a series of learning resources. Random assessment of a series does not afford the reviewer enough accurate, detailed information to judge the cumulative patterns.
5. The instrument does not provide a scale of acceptance for learning resources. Furthermore, no attempt has been made to assign priority ranking to the criteria. The instrument provides data assessing the type of stereotypic patterns in the learning resource. However, the instrument does include a framework wherein a numerical rating scale can be designed by the user should that be the desired outcome.

Given the limitations, the instrument can be used as a tool to analyze the type of sexist patterns in learning resources. The criteria in the instrument can be used as an inclusive guidelines for the development of an instrument which could provide a rating instrument for degrees of acceptability of learning resources, provided the user assigned a numerical rating to each area and designed a numerical rating scale.

Assumptions

The following assumptions were used in developing the criteria for assessing the sex-role stereotyping in Michigan vocational education learning resources:

1. Male and female students are frequently exposed to sex-role stereotyped vocational education curriculum materials.
2. These stereotypic learning resources contribute to limited opportunities in vocational and career education for all students.
3. Sex bias and stereotypic opportunities must be measured by a *cumulative effect or pattern* suggested in the learning resource.
4. Any cumulative effect or pattern in a learning resource which presents limited vocational/career choices to males and females on the basis of race or sex is *unacceptable*.

To avoid subjective interpretation on the part of the reviewer, the instrument attempts to minimize the use of emotional and charged language in the criteria. To guide the reviewer, a detailed definition, with examples, is provided for each criterion in Attachment B. A reviewer work-sheet is also attached to the instrument.

Definition of Terms

Sex-role Stereotype—A constellation of traits generally attributed to men or women on the basis of gender.

Learning resource—Any written or visual material used as a tool for expanding knowledge or gaining insight.

Global perception—The impression which the sum or integration of all pages suggests to the reader.

Sex bias in vocational education—Any factor that might influence a person to limit—or might cause others to limit—his or her considerations of a career solely on the basis of gender. (Verheyden-Hilliard, 1976)

Male sex-role stereotype—Any behavioral, physical or psychological attribute implied or depicted which limits a male person to being: aggressive, rational, a leader, ambitious, athletic, forceful, individualistic, self-reliant, self-sufficient, competitive, analytical, dominant, protective, and virile. (Bem, 1974)

Female sex-role stereotype—Any behavioral, physical, or psychological attribute, implied or depicted which limits a female person to being: affectionate, cheerful, childlike, compassionate, gentle, gullible, lover of children, sensitive to the needs of others, soft spoken, sympathetic, tender, dependent, supportive, yielding, confused, and weak. (Bem, 1974)

Coding Identification Sheet—Attachment A

The Learning Resource Information sheet should be complete before proceeding with the review of the materials, using the coding identification sheet (Attachment A).

Definitions and Examples of Items—Attachment B

The reviewer is *not* bound by these examples and definitions which serve only as a guide which the rater should use in the review.

The reviewer should read Attachment B thoroughly to become familiar with the definitions and examples before proceeding with the review.

INSTRUCTIONS TO THE REVIEWER

Marking the Rating Sheet

Each of the 20 criteria is to be applied to three different areas: (1) context, (2) language, (3) illustrations.

(1) Context—written and visual components of the learning resource which lend connotation to a word, statement or picture.
(2) Language—typed or handwritten words appearing on the pages of the learning resources.
(3) Illustrations—visuals appearing on the pages of the learning resources, including but not limited to pictures, photographs, graphics, tables, charts, graphs, posters and art designs.

Each criterion is to be marked for each of the three areas, using the following guidelines for rating: Each criterion has an underlined word(s) or concept which determine whether that criterion is applicable to an area. If there is any evidence that the criterion is reflected in the learning resource, a mark should be made in either the Yes or No column.

A mark should be made in the Yes ☐ column when the learning resource:

- communicates major instances of stereotyping
- presents stereotypic items which are not balanced by non-stereotypic examples in the same learning resource
- gives students a limited perspective on their career, life, leisure and citizenship roles

A mark should be made in the No ☐ column when the learning resource:

- communicates minor, scattered instances of stereotyping
- presents non-stereotypic items in the same learning resource which offset any limitations suggested by sex-role stereotyping
- provides students with non-biased role modeling and expands options for career, life, leisure and citizenship roles

A mark should be made in the NA ☐ column when the criterion is:

- *not applicable* to that area for that learning resource

Absence of a criterion should not be interpreted as a stereotypic attitude of the publisher or author.

Ex: A 2-3 page brochure on careers in the construction trades could be directed primarily to men. The language is biased; the only 2 pictures in the brochure for such careers in the trades are clustered around traditional male interests and work experience.

The rater should not apply criterion 10 (predominance of the female stereotypic personality) *to any area.* There is no reference in language, context or illustration to female personality traits. Therefore *criterion 10 is not applicable to any area of this learning resource,* though in failing to direct the brochure to all interested students, the publisher or author has probably some biased assumptions regarding the suitability of a career in construction trades for females, given their personalities, interests and abilities.

To continue this example:

Criterion #7 (stereotypic interest, ability, activity or interaction in the working setting) *would be applied and marked in Yes ☐ column.* (See the definitions in Attachment B, #7.)

Random Sampling

A learning resource less than 75 pages in length should be reviewed in total.

A learning resource more than 75 pages in length should be reviewed using these formulas:

For a textbook, divided into chapters:
read every other chapter

For a textbook, not divided into chapters or sections, and for a manual, catalogue or reference book:

divide total number of pages by 15 and sample every other division. For example: In a 300 page learning resource, there would be 20 divisions (300÷15=20.). You would sample pages 1-15, 30-45, 60-75, 90-105, 120-135, 150-165, 180-195, 210-225, 240-255, 270-285.

LEARNING RESOURCE INFORMATION SHEET

Sex-Role stereotyping in Learning Resources

Title: _____

Date of Publication: _____

Nature of Learning Resource: _____

Primary Function(s) Served: _____

Vocational Area Focus: _____

Length by page numbers: _____

Length of time (film, cassettes, etc.): _____

RATING SHEET
SEX-ROLE STEREOTYPING IN LEARNING RESOURCES

CRITERION	AREAS: CONTEXT Yes	CONTEXT No	CONTEXT NA	LANGUAGE Yes	LANGUAGE No	LANGUAGE NA	ILLUSTRATION Yes	ILLUSTRATION No	ILLUSTRATION NA
1. Presence of neutral *identification*	☐	☐		☐	☐		☐	☐	
2. *Statements* which *stereotype* either sex	☐	☐		☐	☐		☐	☐	
3. Predominantly *male characters*, resulting in overall underrepresentation of female sex	☐	☐	☐	☐	☐	☐	☐	☐	☐
4. Predominantly *female characters*, resulting in overall underrepresentation of male sex	☐	☐	☐	☐	☐	☐	☐	☐	☐
5. Stereotypic interest, ability, activity, structure or interaction *with family*	☐	☐	☐	☐	☐	☐	☐	☐	☐
6. Stereotypic interest, ability, activity, structure or interaction *among peers*	☐	☐	☐	☐	☐	☐	☐	☐	☐
7. Stereotypic interest, ability, activity, or interaction *in the work setting*	☐	☐	☐	☐	☐	☐	☐	☐	☐
8. Presence of non-traditional *male role models*	☐	☐	☐	☐	☐	☐	☐	☐	☐
9. Presence of non-traditional *female role models*	☐	☐	☐	☐	☐	☐	☐	☐	☐
10. Predominance of *female* stereotypic *personality*	☐	☐	☐	☐	☐	☐	☐	☐	☐
11. Predominance of *male* stereotypic *personality*	☐	☐	☐	☐	☐	☐	☐	☐	☐
12. *Humor* based on sex-role stereotyping	☐	☐	☐	☐	☐	☐	☐	☐	☐
13. Stereotypic *physical appearance*	☐	☐	☐	☐	☐	☐	☐	☐	☐
14. *Hypothetical examples or problems* focusing primarily on *males*	☐	☐	☐	☐	☐	☐	☐	☐	☐
15. *Hypothetical examples or problems* focusing primarily on *females*	☐	☐	☐	☐	☐	☐	☐	☐	☐
16. Little or no recognition of the *achievements by males*	☐	☐	☐	☐	☐	☐	☐	☐	☐
17. Little or no recognition of the *achievements by females*	☐	☐	☐	☐	☐	☐	☐	☐	☐
18. Limited range of *vocational and career choices for males*	☐	☐	☐	☐	☐	☐	☐	☐	☐
19. Limited range of *vocational and career choices for females*	☐	☐	☐	☐	☐	☐	☐	☐	☐
20. Representation of *minority groups*	☐	☐	☐	☐	☐	☐	☐	☐	☐
21. Tracking of minority groups *in the work setting*	☐	☐	☐	☐	☐	☐	☐	☐	☐
22. Rate from 1-3 the degree to which minority groups are represented in the learning resource*	☐	☐	☐						

[*1] Minority ethnic groups are *very* representative of population patterns in the State of Michigan; 10 to 1 representation.

[2] Minority ethnic groups are *somewhat* representative of population patterns in the State of Michigan.

[3] Minority ethnic groups have *limited* representation of population patterns in the State of Michigan.

ATTACHMENT A

CODING IDENTIFICATION INFORMATION

1. **Nature of Learning Resource**
   - 1.1 textbook—(volume of written, printed information, 50+ pages)
   - 1.2 manual—(small reference book usually giving instructions)
   - 1.3 catalogue—(an itemized, sometimes descriptive list)
   - 1.4 reference book
   - 1.5 interest survey/questionnaire
   - 1.6 pamphlet, leaflet, brochure
   - 1.7 books other than text or reference
   - 1.8 audio-visual material
     - 1.8 film
     - 1.8 filmstrip
     - 1.8 poster
     - 1.8 cassette tape
     - 1.8 video tape
     - 1.8 other (specify on cover sheet)
2. **Primary Function of Learning Resource**
   - 2.1 skill building
   - 2.2 personal growth—affective domain
   - 2.3 personal growth—cognitive domain
   - 2.4 personal growth—psychomotor domain
   - 2.5 occupational decision-making
   - 2.6 assigning students to courses or programs
   - 2.7 recruitment to programs or schools
   - 2.8 placement in work study or employment
   - 2.9 other (specify on cover sheet)
3. **Vocational Area Focus**
   - 3.1 industrial production
   - 3.2 office
   - 3.3 service
   - 3.4 sales
   - 3.5 technical/trade
   - 3.6 transportation
   - 3.7 health
   - 3.8 art, design, communications
   - 3.9 other _____

ATTACHMENT B

DEFINITIONS AND EXAMPLES OF CRITERIA

Criterion

1. Presence of neutral identification: Occupations, interests, objects, job titles or activities are not assigned on a gender basis. Also, the syntax (man) is absent in the materials.

   Ex: Amidst rave reviews, the *sculptress* opened her show in New York.

   The film featured Dr. Anna Smythe, one of the well-known *female* doctors whose studies of blood plasma significantly contributed to *man's* understanding of microbiology in the nineteenth century.

   The company *spokesman* attributed slow production to illness and the city's transportation strike.

   Marketing analysts are trained to interview a subject in *her* home and research the products *her* family uses.

   "Appointments are made only on a temporary basis," grumbled the workers. The *men* planned to take their complaint to union officials later next week.

   After several hours of work, the engine was finally repaired. "She runs like a top," they shouted over the noise.

2. Statements which stereotype either sex: sentences, questions, clichés, innuendoes or modifiers which connote or denote interests, traits, activities or abilities on the basis of gender.

   Ex: Sissy, henpecked, stud, little ladies, guys, broad, chick, girlish, dude, tomboy.

   The salary of a copywriter is dependent upon *his* years of experience.

   "Aw, *take it like a man*," he grumbled as I rubbed my hand in pain.

   The job of a line foreman could be held by a man or woman. *He* works with a group to . . .

   Train in an apprentice program! *Ladies* especially welcome to apply.

   The new course for advanced interior design will begin in the fall semester. *The course is also open to men.*

   Being a crane operator is a *man*-sized job.

3. Predominantly male character(s), resulting in underrepresentation of females: A vast majority of the learning resource is directed most frequently to males through a written or visual focus on males.
4. Predominantly female character(s), resulting in underrepresentation of females: A vast majority of the learning resource is directed most frequently to females through a written or visual focus on females.
5. Stereotypic interest, ability, activity, structure or interaction within the family: Roles in the family unit are frequently assigned on the basis of sex.

   Ex: Females: in the kitchen, cooking, sewing, serving meals, washing, cleaning, sweeping; associated with household appliances and children; shopping, chauffering, active indoors.

   Males: in the basement or relaxing room; climbing ladders, taking out garbage, changing storm windows, tinkering, repairing, painting, mowing lawns; associated with tools, machines, cars and heavy objects; active outdoors.
6. Stereotypic interest, ability, activity, structure or interaction among peers: females and males separated by sex and age into groups, with one group as active participants and the other group as passive onlookers, or peers of one sex rarely sharing similar interests, abilities and activities with peers of the opposite sex.

   Ex: Illustration featuring family living course instructor in front of all female class; narrative of a field trip to a local auto plant with all male language references.

   Shop 202: Fall Term Projects

Boys	Girls
tie rack	cup holder
tool holder	jewelry box
desk lamp	vase

7. Stereotypic interest, ability, activity, structure or interaction in the work setting. Occupations and/or occupational areas represent only that sex which has traditionally been employed in that occupation. The material's direction, focus, and purpose continues to support occupational choice and career exploration on the basis of gender.

   Ex: Female secretary (with) male supervisor; female dental assistant (working for) male dentist; female clerk in drugstore (with) male pharmacist; female airline attendant (with) male pilot; female insurance clerk (with) male claims adjuster; female dieticians, switchboard operators, librarians, or keypunch operators; male hotel managers, construction workers, grounds crew members, electricians or truck drivers.

   Any worker who wishes to apply for an over-time clean-up shift will be paid time and one-half beginning next Monday. All interested *women* should report to Room 219 Monday before third shift.

   Job opening: second shift foreman. Hours 3:30-11:00 p.m. Salary $6.25/hour. Duties posted on cafeteria bulletin board. All interested *men* should call 7-2269 for an interview before 10/23/77.

8. Presence of non-stereotypic male role models: Examples and allusions to suggest that males can participate in a variety of careers and succeed, including occupations in
   - food service
   - office work
   - teaching
   - health and social services
   - consumer education
   - homemaking

9. Presence of non-stereotypic female role models: Examples and allusions to suggest that females can participate in a variety of careers and succeed, including occupations in
   - construction
   - industrial management
   - communications
   - finance
   - science and technology

10. Predominance of female stereotypic personality traits: The assignment of personality traits that, if clustered, would present the traditional female as
   - emotional
   - weak
   - possessive
   - illogical
   - clean
   - inactive
   - quiet
   - submissive
   - nurturing
   - dependent

11. Predominance of male stereotypic personality traits: the assignment of personality traits that, if clustered, would present the traditional male as
   - tough
   - aggressive
   - brash
   - strong
   - independent
   - dirty
   - loud
   - determined
   - competitive
   - insensitive

12. Humor based on sex role stereotyping: jokes, puns, riddles, asides, cartoons and "light" statements which through allusion or direct reference to a stereotype are intended to elicit a laugh from the reader.

   Ex: Family financial matters are best handled by the husband. More than once a wife has been unable to resist the bargain basement sales.

   Shop teacher to female student: "I didn't mean a nail file."

13. Stereotypic physical appearance.

   Ex: Females: coy facial expression, wringing hands, distraught features, lowered head, hunched shoulders, downcast eyes, pastel clothing, dresses; inaction through sitting, standing off, riding (not driving).

   Males: broad shoulders, dirty faces and hands, taller (than females), messy hair, disheveled clothes, outstretched arms, alert eyes; action through building, exploring, experimenting.

14. Hypothetical problems or examples focusing primarily on males. case studies, story problems, study paragraphs, study questions or exercises in which the majority of references focus on or refer to males.

   Ex: Growth in the demand for better machinery was spearheaded when the *chiefs* of industry relied more on calculators than adding machines for up-to-date financial analysis. *Salesmen* in the field report that the average accountant uses at least 3 different machines in the course of *his* day's work. List all the machines *he* might use to report the company's monthly budget.

15. Hypothetical problems or examples focusing primarily on females.

   Ex: Home economics majors study science and the literal arts. 4-H clubs and other programs for *girls*, in areas such as *home management, family relations* and *nutrition*, can serve as informal learning experiences for *women* interested in entering this field. What skills does a *housewife* have that a home economics major would study?

16. Little or no recognition of achievement by males: Material in the learning resources neglects to allude to or cite the accomplishments of males. Such accomplishments could include
   - professional contributions to a field in theory
   - discoveries, inventions, research efforts in the field
   - awards, citations, tributes for work in a field
   - activities which history has proven to be significant

17. Little or no recognition of achievements by females: Material in the learning resource neglects to allude to or cite the accomplishments of females.

18. Limited range of vocational and career choices for males: Jobs, occupations, career paths and vocational interest ranges include those traditionally held by males.

   Ex: inventor, laborer, lawyer, inspector, construction worker, engineer, plumber, carpenter, minister, store owner, scientist, mechanic.

19. Limited range of vocational and career choices for females: Jobs, occupation, career paths and vocational interest ranges include those traditionally held by females.

   Ex: sales clerk, secretary, seamstress, teacher, keypunch operator, librarian, bank teller, homemaker, dietician, social worker, switchboard operator, nurse, interior designer.

20. Evidence of an intention to represent minorities: Portions of the material in the learning resource are directed to, and focus on, the achievements, life aspirations, career goals, life styles and/or behaviors of all ethnic groups, including minorities.

21. Tracking of minority groups in the work setting: Blacks, Native Americans, Spanish surnamed Americans, Orientals, and/or Asians are clustered in lower paying, low status occupations in which little or no managerial, supervisory or leadership responsibility is assigned to them on the job; occupations with more prestige, salary and responsibility are assigned primarily to white persons.

REVIEWER WORK SHEETS

The work sheet is a means of informally tabulating responses and assisting the reviewer in identifying the cumulative effect with regard to each criterion.

This sheet is to be used by the reviewer as he/she reads the learning resource. For each criterion, three spaces have been provided to (1) briefly note citations (2) to identify the page number and (3) to categorize the citation. Both "weak" and "strong" notations should be noted on the work sheet. For example:

CRITERION	NOTATION	PAGE	AREA
13. Physical appearance	Good picture of female in coveralls with blow-torch	14	Illustration
11. Male stereotype personality	Chapter notes men's roles in sharing household duties	Chap. 6 52-62	Context
9. Presence of non-stereotypic female role models	No instances of females pictured as supervisors	Throughout whole book	Illustration
1. Presence of neutral language	Neutral use of language throughout.	almost every page	Language
6,7 Female 10 stereotypes	Females not participating—watching males work on car engine	45	Illustration
20, Minority 21 representation	Good written section on job opportunity for minorities but very few pictured in text	133-135	Context and Illustration

SAMPLE

This work sheet is particularly helpful when reviewing a lengthy learning resource of 75 pages or more. The reviewer should read all notations on the work sheet before making any marks on the rating instrument. Raters are encouraged to briefly state their overall impression of the learning resource regarding sex and racial bias at the end of the work sheet.

REVIEWER WORK SHEET

CRITERION	NOTATION	PAGE	AREA
1. Presence of neutral identification			
2. Stereotypical statements			
3. Predominantly male characters			
4. Predominantly female characters			
5. Stereotypes in family			
6. Stereotypes among peers			
7. Stereotypes in work setting			
8. Presence of male role models—non-stereotypic			

REVIEWER WORK SHEET

CRITERION	NOTATION	PAGE	AREA
9. Presence of female role models—non-stereotypic			
10. Stereotypic female personality			
11. Stereotypic male personality			
12. Stereotypic humor			
13. Physical appearance			
14. Male examples/ problems			
15. Female examples/ problems			
16. Little recognition of male achievements			

REVIEWER WORK SHEET

CRITERION	NOTATION	PAGE	AREA
17. Little recognition of female achievements			
18. Limited career range for males			
19. Limited career range for females			
20. Evidence of intention to represent minorities			
21. Tracking minorities in work			